

Intel® Core™ 2 Duo Processor, Dual PMC/XMC



APPLICATIONS

The PP 531/06x is a PC-compatible, high performance, dual PMC/XMC, CompactPCI® board supporting the Intel® Core™ 2 processor up to 2.26 GHz (45nm process technology), and the Intel® GS45 mobile chipset with up to 8 Gbytes of DDR3-1066 SDRAM. The PP 531/06x features a variety of I/O interfaces including an option for an on-board SATA300 drive and a CompactFlash® socket. The board will operate in a system slot, a peripheral slot or independently from the CompactPCI

bus. Supporting two Gigabit Ethernet ports, the board is compliant to the PICMG® 2.16 specification. Full system monitoring is provided by the PICMG 2.9 compliant IPMI interface. The PP 531/06x is suitable for demanding applications within the defense, industrial control, telemetry, transportation, and aerospace markets. Ruggedized conduction-cooled and air-cooled versions supported. To simplify the board's integration many popular standard operating systems are supported.

HIGHLIGHTS

- 2.26GHz or 1.86GHz Intel® Core™ 2 Duo processor:
 - 45nm process technology, dual-core processor
 - 1066MHz Front Side Bus
 - 6 Mbytes last-level cache shared between cores
 - Intel® 64 Technology (64-bit computing)
- Up to 8 Gbytes DDR3-1066 SDRAM
- 2 x PMC/XMC sites with front and rear user I/O:
 - 32/64-bit; 33/66MHz PCI
 - 64-bit; up to 100MHz PCI-X
 - XMC interfaces (x8 and x4 PCI Express™)
- High-performance mass storage interfaces:
 - 2 external SATA 300 ports
 - optional on-board Hard Disk Drive
- On-board CompactFlash® socket
- 4 x Universal Serial Bus (USB 2.0) interfaces
- 4 x 10/100/1000Mbps Ethernet interfaces:
 - Dual Gigabit Packet Switching Backplane (PICMG 2.16)
 - Support for Wake-On-LAN
- 1 x RS232/RS422/RS485 serial channel interface
- Graphics, keyboard and mouse interfaces
- Watchdog timer and Long Duration Timer
- CompactPCI controller:
 - operates in system slot or peripheral slot
 - 32/64-bit at 33/66 MHz CompactPCI interface
- Option to bypass CompactPCI bus (Satellite Mode)
- IPMI (Intelligent Platform Management Interface)
- PICMG 2.9 (System Management Specification)
- Extended temperature versions:
 - -25°C to +70°C (E-Series)
 - -40°C to +85°C (K-Series, includes humidity sealant)
- Ruggedized conduction-cooled version (RC-Series):
 - conduction-cooled to ANSI/VITA 30.1-2002
 - -40°C to +85°C, conformally coated
 - see separate PP 531/06x-RC datasheet
- Ruggedized air-cooled version (RA-Series):
 - -40°C to +75°C, conformally coated
 - see separate PP 531/06x-RA datasheet
- Support for Linux®, Windows® XP, Windows® XP Embedded, Windows® Server 2003, Windows® Server 2008, QNX®, Solaris™ and VxWorks®

